WHAT IS CLAIMED IS:

1. A liquid pharmaceutical composition comprising calcitonin or an acid addition salt thereof and citric acid and/or salt thereof in a concentration from ~~about~~ 10 to about 50 mM, said composition being in a form suitable for nasal administration.

2. The liquid pharmaceutical composition of claim 1 further comprising a pharmaceutically acceptable, aqueous liquid nasal carrier.

3. The liquid pharmaceutical composition of claim 2, wherein said carrier comprises aqueous saline.

4. The liquid pharmaceutical composition of claim 1, wherein said composition is in the form of a nasal spray.

5. The liquid pharmaceutical composition of claim 4 having a viscosity of less than 0.98 cP.

6. The liquid pharmaceutical composition of claim 1, wherein the calcitonin is selected from the group consisting of salmon calcitonin, human calcitonin, porcine calcitonin and 1,7-Asu-eel calcitonin.

7. The liquid pharmaceutical composition of claim 1, wherein the calcitonin is salmon calcitonin.

8. The liquid pharmaceutical composition of claim 1, wherein said calcitonin, or salt is present in an amount of from about 100 to about 8,000 MRC units/ml.

9. The liquid pharmaceutical composition of claim 1, wherein said calcitonin, or salt is present in an amount of from about 500 to about 4,000 MRC units/ml.

10. The liquid pharmaceutical composition of claim 1, wherein said calcitonin, or salt is present in an amount of from about 500 to about 3,000 MRC units/ml.

11. The liquid pharmaceutical composition of claim 1, wherein said calcitonin, or salt is present in an amount of from about 1,000 to about 2,500 MRC units/ml.

12. The liquid pharmaceutical composition of claim 1 having a pH of from about 3 to about 5.

13. The liquid pharmaceutical composition of claim 1 having a pH of from about 3.5 to about 3.9.

14. The liquid pharmaceutical composition of claim 1

having a pH of about 3.7.

15. The liquid pharmaceutical composition of claim 1 having an osmotic pressure of from about 250 to about 350 mOsm/liter.

SUB A6

16. The liquid pharmaceutical composition of claim 1 further containing at least 0.1% by weight of Tween 80.

17. The liquid pharmaceutical composition of claim 1 further containing at least one preservative selected from the group consisting of benzyl alcohol, phenylethyl alcohol, methyl parabens, ethyl parabens, propyl parabens and butyl parabens.

SUB A7

18. A liquid pharmaceutical composition comprising about 2,200 MRC units of salmon calcitonin, about 10 mM citric acid, about 0.2% phenylethyl alcohol, about 0.5% benzyl alcohol, and about 0.1% Tween 80.

19. A liquid pharmaceutical composition comprising about 2,200 MIC units of salmon calcitonin, about 20 mM citric acid, about 0.2% phenylethyl alcohol, about 0.5% benzyl alcohol, and about 0.1% Tween 80.

20. A method of administering a calcitonin to a

subject requiring calcitonin treatment, which method comprises administering to said subject a composition as defined in claim 1 via the nasal route.

21. The method of claim 20, wherein the amount of calcitonin administered is from about 200 to about 600 MRC units.

22. A method of improving the stability of a liquid pharmaceutical composition of calcitonin comprising adding citric acid or a salt thereof in a concentration from ~~about~~ 10 to about 50 mM to said composition.

23. A method of improving the bioavailability or the concentration of plasma calcitonin in a subject following nasal administration of a liquid pharmaceutical composition of calcitonin, which method comprises adding citric acid or a salt thereof in a concentration from ~~about~~ 10 to about 50 mM to said composition prior to said administration.